Claim Amendments

Please replace the existing listing of claims with the claim listing below.

1.-61. (Canceled)

62. (new) A kit for introduction of an electric current and/or voltage to a skin portion and/or transdermal or intradermal delivery of substances comprising:

(a) a dermal patch which comprises a power source and at least two electrodes in electrical connection with the power source, said electrodes for electrical coupling with a skin portion of a subject; and

(b) at least one separator for retaining a conductive fluid, said conductive fluid being for deposition on at least one of said at least two electrodes and/or topical application onto the skin portion of the subject, said separator being for preventing contact between the at least one of said at least two electrodes and the skin portion;

said patch being designed and configured for delivering an electric current through the skin and said conductive fluid.

63. (new) The kit of claim 62, wherein said conductive fluid is an aqueous based fluid.

64. (new) The kit of claim 62, wherein said conductive fluid is a hydrogel.

65. (new) The kit of claim 62, wherein said conductive fluid is selected from the group consisting of a gel, a cream, a paste, a lotion, a suspension, an emulsion and a solution.

66. (new) The kit of claim 62, wherein said electric current is for causing iontophoresis, electrophoresis, electroporation or any combination thereof.

67. (new) The kit of claim 62, wherein said at least two electrodes are integrally formed with said power source.

68. (new) The kit of claim 62, wherein said power source and said at least two electrodes are the sole constituents of said patch.

69. (new) The kit of claim 62, wherein said dermal patch further comprises an attachment mechanism for attaching to the skin portion of the subject.

70. (new) The kit of claim 62, wherein said dermal patch further comprises a circuitry for controlling said electric current.

71. (new) The kit of claim 62, wherein said power source is a flexible thin layer electrochemical cell.

72. (new) The kit of claim 71, wherein said electrochemical cell is a flexible thin layer open liquid state electrochemical cell which comprises a first layer of insoluble negative pole, a second layer of insoluble positive pole and a third layer of aqueous electrolyte, said third layer being disposed between said first and second layers and including:

(a) a deliquescent material for keeping the open cell wet at all times;

(b) an electroactive soluble material for obtaining required ionic conductivity; and

(c) a water-soluble polymer for obtaining a required viscosity for adhering said first and said second layers to said third layer.

73. (new) The kit of claim 62, packaged and identified for an application selected from the group consisting of a wound healing application, a scar prevention application, a scar reduction application, a tissue repair application, a tissue regeneration application, muscle stimulation, muscle contraction, accelerated bone healing, inhibition of inflammation, facilitation and promotion of metabolic processes, pain alleviation, and treatment of rosacea and telangiactasia.

74. (new) The kit of claim 62, wherein the kit is for transdermal or intradermal delivery of at least one substance.

75. (new) The kit of claim 74, wherein said conductive fluid contains said at least one substance.

76. (new) The kit of claim 75, wherein said at least one substance is a charged substance.

77. (new) The kit of claim 75, wherein said at least one substance is an uncharged substance.

78. (new) The kit of claim 75, wherein said at least one substance is selected from the group consisting of a pharmaceutical, a cosmetic, a cosmeceutical and moisture.

79. (new) The kit of claim 78, wherein said pharmaceutical is selected from the group consisting of a therapeutic and an anesthetic.

80. (new) The kit of claim 75, wherein said separator is for deposition upon the skin portion such that, upon contact by said separator with at least one of said at least two electrodes, said electric current causes said transdermal or intradermal delivery of said at least one substance.

81. (new) The kit of claim 75, wherein said separator is for deposition on at least one of said at least two electrodes such that, upon contact by said separator with the skin portion, said electric current causes said transdermal or intradermal delivery of said at least one substance.

82. (new) The kit of claim 80, wherein said separator is contained in a removable cover.

83. (new) The kit of claim 74, wherein at least one electrode of said at least two electrodes is for mobilizing said at least one substance.

84. (new) The kit of claim 62, wherein said kit is for introduction of current and/or voltage to said skin portion of a subject.

85. (new) The kit of claim 84, wherein said separator is for deposition upon the skin portion.

86. (new) The kit of claim 84, wherein said separator is for deposition on at least one of said at least two electrodes.

87. (new) The kit of claim 62, wherein said dermal patch is a thin and flexible patch.

88.. (new) The kit of claim62, wherein said dermal patch further comprises a patch body and wherein said electrochemical cell and said at least two electrodes are disposed on said

patch body in spaced relation to each other to define a gap between said at least two electrodes.

89. (new) The kit of claim 75, wherein said at least one substance is at least one antibiotic.

90. (new) The kit of claim 74, wherein said at least one substance is at least one of antiinfectives, antibiotics, antiviral agents, analgesics, fentanyl, sufentanil, buprenorphine, analgesic combinations, anesthetics, anorexics, antiarthritics, antiasthmatic agents, terbutaline, anticonvulsants, antidepressants, antidiabetic agents, antidiarrheals, antihistamines, antiinflammatory agents, antimigraine preparations, antimotion sickness, scopolamine, ondansetron, antinauseants, antineoplastics, antiparkinsonism drugs, cardiostimulants, dobutamine, antipruritics, antipsychotics, antipyretics, antispasmodics, gastrointestinal and urinary, anticholinergics, sympathornimetics, xanthine derivatives, cardiovascular preparations, calcium channel blockers, nifedipine, beta-blockers, beta-agonists, salbutamol, ritodrine, antiarrythmics, antihypertensives, atenolol, ACE inhibitors, diuretics, vasodilators, coronary, peripheral and cerebral, central nervous system stimulants, cough and cold preparations, decongestants, diagnostics, hormones, parathyroid hormone, growth hormone, insulin, hypnotics, immunosuppressives, muscle relaxants, parasympatholytics, parasympathomimetics, anti-oxidants, nicotine, prostaglandins, psychostimulants, sedatives, tranquilizers, skin acting anti-oxidants, caretenoids, ascorbic acid (vitamin C), vitamin E, anti wrinkling agents, retinoids, retinol (vitamin A alcohol), alpha-hydroxic acids, beta-hydroxy acid, salicylic acid, combination-hydroxy acids and poly-hydroxy acids, and hydrolyzed and soluble collagen, moisturizers, hyaluronic acid, anticellulite agents, aminophyllines, skin bleaching agents, retinoic acid, hydroquinone, peroxides, botanical preparations, extracts of aloe-vera, wild yam, hamamelitanin, ginseng, witch hazel and green tea.

91. (new) A method of use of a dermal patch, wherein the dermal patch comprises at least one power source for powering the patch and at least two electrodes electrically coupled to the power source, and a retainer for retaining a substance and for preventing contact between at least one of said at least two electrodes and a skin portion, said method comprising:

(a) positioning the dermal patch such that the electrodes are conductively coupled to the skin portion of the subject; and

(b) delivering an electric current to the skin portion of the subject.

92. (new) The method of claim 87, further comprising promoting delivery of at least one substance to the skin portion, wherein said at least one substance is comprised in said conductive fluid.

93. (new) The method of claim 88, wherein said at least one substance is delivered transdermally or intradermally.

94. (new) A dermal patch comprising at least one power source for powering the patch and at least two electrodes in electrical connection with said power source, said electrodes for electrically coupling to a skin portion of a subject; and a retainer for retaining a substance and for preventing contact between at least one of said at least two electrodes and the skin portion.

95. (new) The patch of claim 63 for introducing current and/or voltage to said skin portion of the subject.

96. (new) The patch of claim 93 for at least one of dermal delivery, transdermal delivery and intradermal delivery or a combination thereof of at least one substance to said skin portion of the subject.

97. (new) The patch of claim 93, wherein said patch is a thin and flexible patch.

98. (new) The patch of claim 93, wherein said at least two electrodes are integrally formed with said power source.

99. (new) The patch of claim 93, wherein said patch further comprises a patch body and wherein said power source and said at least two electrodes are disposed on said patch body in spaced relation to each other to define a gap between said at least two electrodes.

100. (new) The patch of claim 93, wherein said patch further comprises an attachment mechanism for attaching to said skin portion of the subject.

101. (new) The patch of claim 93, wherein said patch further comprises circuitry for controlling said electric current.

102. (new) The patch of claim 93, wherein said power source is a flexible thin layer electrochemical cell.

103. (new) The patch of claim 101, wherein said flexible thin layer electrochemical cell is a flexible thin layer open liquid state electrochemical cell which comprises a first layer of insoluble negative pole, a second layer of insoluble positive pole and a third layer of aqueous electrolyte, said third layer being disposed between said first and second layers and including:

(a) a deliquescent material for keeping the open cell wet at all times;

(b) an electroactive soluble material for obtaining required ionic conductivity; and

(c) a water-soluble polymer for obtaining a required viscosity for adhering said first and said second layers to said third layer.

104. (new) The patch of claim 93, packaged and identified for an application selected from the group consisting of a wound healing application, a scar prevention application, a scar reduction application, a tissue repair application, a tissue regeneration application, muscle stimulation, muscle contraction, accelerated bone healing, inhibition of inflammation, facilitation and promotion of metabolic processes, pain alleviation, and treatment of rosacea and telangiactasia.

105. (new) The patch of claim 93 further comprising a conductive fluid.

106. (new) The patch of claim 104, wherein said conductive fluid further comprises at least one substance and wherein said conductive fluid is preapplied to said at least two electrodes and wherein on contacting said patch with skin an electric current is delivered through said conductive fluid and skin of a subject so as to transdermally or intradermally deliver said at least one substance.

107. (new) The patch of claim 104, wherein said conductive fluid is aqueous hydrogel.

108. (new) The patch of claim 106, wherein said at least one substance is selected from the group consisting of a pharmaceutical, a cosmetic, a cosmeceutical and moisture.

109. (new) The patch of claim 108, wherein said at least one substance is at least one antibiotic.

110. (new) The dermal patch of claim 93, wherein said at least one substance is at least one of antiinfectives, antibiotics, antiviral agents, analgesics, fentanyl, sufentanil, buprenorphine, analgesic combinations, anesthetics, anorexics, antiarthritics, antiasthmatic agents, terbutaline, anticonvulsants, antidepressants, antidiabetic agents, antidiarrheals, antihistamines, antiinflammatory agents, antimigraine preparations, antimotion sickness, scopolamine, ondansetron, antinauseants, antineoplastics, antiparkinsonism drugs, cardiostimulants, dobutamine, antipruritics, antipsychotics, antipyretics, antispasmodics, gastrointestinal and urinary, anticholinergics, sympathornimetics, xanthine derivatives, cardiovascular preparations, calcium channel blockers, nifedipine, beta-blockers, beta-agonists, salbutamol, ritodrine, antiarrythmics, antihypertensives, atenolol, ACE inhibitors, diuretics, vasodilators, coronary, peripheral and cerebral, central nervous system stimulants, cough and cold preparations, decongestants, diagnostics, hormones, parathyroid hormone, growth hormone, insulin, hypnotics, immunosuppressives, muscle relaxants, parasympatholytics, parasympathomimetics, anti-oxidants, nicotine, prostaglandins, psychostimulants, sedatives, tranquilizers, skin acting anti-oxidants, caretenoids, ascorbic acid (vitamin C), vitamin E, anti wrinkling agents, retinoids, retinol (vitamin A alcohol), alpha-hydroxic acids, beta-hydroxy acid, salicylic acid, combination-hydroxy acids and poly-hydroxy acids, and hydrolyzed and soluble collagen, moisturizers, hyaluronic acid, anticellulite agents, aminophyllines, skin bleaching agents, retinoic acid, hydroquinone, peroxides, botanical preparations, extracts of aloe-vera, wild yam, hamamelitanin, ginseng, witch hazel and green tea.

111. (new) A thin and flexible dermal patch comprising:

at least one negative electrode and at least one positive electrode for electrical coupling to the skin portion of a subject;

a thin and flexible power source electrically coupled to said at least one negative electrode and said at least one positive electrode, wherein said thin and flexible power source powers the patch; and

a thin retainer comprising a conductive fluid/composition wherein the thin retainer is disposed on at least one of said at least one negative electrode and said at least one positive

electrode.

112. (new) The thin and flexible patch of claim 111, wherein said at least one negative electrode, said at least one positive electrode and said thin and flexible power source are disposed on a patch body in spaced relation to each other to avoid contact between each of the electrodes.

113. (new) The thin and flexible patch of claim 111, wherein said at least one negative electrode and said at least one positive electrode are applied to said patch body using a printing technique.

114. (new) The thin and flexible patch of claim 111 covered with a liner.

115. (new) The thin and flexible patch of claim 111, wherein the conductive fluid/composition comprises at least one active substance.

116. (new) The thin and flexible patch of claim 115, wherein said at least one active substance is selected from the group consisting of a pharmaceutical, cosmeceutical, cosmetic, moisture or a combination thereof.

117. (new) The thin and flexible patch of claim 111 for promoting delivery of said an active substance into a skin portion of a subject.

118. (new) The thin and flexible patch of claim 111 for delivering an electric current/voltage to a skin portion of a subject.

119. (new) The thin and flexible patch of claim 111, wherein at least one electrode is a medical electrode and at least one electrode is an adhesive electrode.

120. (new) The thin and flexible patch of claim 115, wherein said conductive fluid/composition is disposed on said medical electrode.

121. (new) The thin and flexible patch of claim 111, wherein said power source comprises a thin and flexible electrochemical cell and wherein said thin and flexible electrochemical

cell is a thin and flexible open liquid state electrochemical cell which comprises a first layer of insoluble negative pole, a second layer of insoluble positive pole and a third layer of aqueous electrolyte, said third layer being disposed between said first and second layers and including:

a deliquescent material for keeping the open cell wet at all times;

an electroactive soluble material for obtaining required ionic conductivity; and

a water-soluble polymer for obtaining a required viscosity for adhering said first and said second layers to said third layer.

122. (new) The thin and flexible patch of claim 115, wherein said at least one active substance is at least one antibiotic or comprises salicylic acid.

123. (new) A kit for introduction of an electric current and/or voltage to a skin portion and/or transdermal or intradermal delivery of substances comprising:

(a) a thin and flexible dermal patch which comprises a power source and at least two electrodes in electrical connection with the power source, said electrodes for electrical coupling with a skin portion of a subject; and

(b) at least one retainer for retaining a conductive fluid, said conductive fluid being for deposition on at least one of said at least two electrodes and/or topical application onto the skin portion of the subject;

said patch being designed and configured for delivering an electric current through the skin and said conductive fluid, said electric current being for introduction of current and/or voltage to said skin portion and/or transdermal or intradermal delivery of at least one substance.

124. (new) A thin and flexible dermal patch comprising at least one thin and flexible power source for powering the patch and at least one positive electrode and one negative electrode in electrical connection with the positive pole and negative pole respectively of said power source, said electrodes for electrically coupling to a skin portion of a subject.

125. (new) A dermal patch comprising at least one power source for powering the patch and at least two electrodes in electrical connection with said power source, said electrodes for electrically coupling to a skin portion of a subject, wherein at least one of the at least two electrodes is integrally formed with the power source.

126. (new) The kit of claim 70, wherein said electrical current is constant current.

127. (new) The kit of claim 70, wherein said circuitry comprises at least one of an on-off switch, a timer, a fixed or variable electrical resistor, a field effect resistor, integrated circuit to control the dosage of active agent delivered and a controller.

128. (new) The thin and flexible patch of claim 124 for (i) recovery of substances from the body; (ii) a wound healing application, (iii) inhibition of inflammation or (iv) pain alleviation.

129. (new) The kit of claim 123, wherein said at least one substance comprises an analgesic, anesthetic, hormone, muscle relaxant, anti-wrinkling agent, moisturizer, anticellulite agent, skin bleaching agent, antibiotic, antiinfective or salicylic acid.

130. (new) The kit of claim 123 for (i) recovery of substances from the body; (ii) a wound healing application, (iii) inhibition of inflammation or (iv) pain alleviation.